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Commentary

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Measuring the Load, Easing the Burden

Canada's Student Loan Programs and the Revitalization of Canadian Postsecondary Education

Ross Finnie

In this issue...

Canada's system of loans to college and university students works better than many critics believe, but an expanded program is needed as part of a package to revitalize postsecondary education in Canada.

The Study in Brief

Postsecondary education is of increasing importance to both Canada's international competitiveness and individuals' career success. Are the Canada Student Loans Program and its provincial counterparts doing a good job of enabling Canadians to pursue college or university education without undue financial stress?

The most recent data available (the class of 1995) indicate that fewer than half of all college and university graduates held student loans, that two years after graduation individuals had paid back an average of 40 percent (or more) of these debts, and that only 10 to 15 percent of all graduates reported difficulties with repayment. An updating of the record to the present would likely yield only moderate changes to this profile.

The general picture is, therefore, quite good — at least in terms of current debt levels not being overly burdensome for most graduates. But the system could certainly be improved. Policymakers should consider:

- increasing the eligibility for and limits on student loans for those who need the money;
- further expanding current interest-relief and debt-reduction programs for individuals who face repayment hardship, a group that includes not only many unemployed but also part-time and even full-time workers in lower-paying jobs;
- favoring assistance to most students in the form of loans, while targeting grants on those from low-income families for whom debt aversion is a significant problem;
- enabling further research into how many Canadians have been able to pursue postsecondary education because of student loans and, conversely, how many potential candidates have not studied because they could not get loans, could not borrow enough, or were unwilling to take on the debt load.

Policymakers should also inject resources into the badly strapped postsecondary education system through a "revitalization social contract." Each principal stakeholder — the federal government, provincial governments, and students themselves — would put an additional $1,000 per capita into the system. Students would pay their share through increased tuition, but those who needed aid would receive assistance through grants and the enhanced loans program proposed in this *Commentary*.

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For almost 30 years, the Canada Student Loans Program (CSLP) and its provincial counterparts have helped millions of Canadians attend college or university and thereby achieve major career and life goals. But this system has never been beyond criticism. An important set of recent concerns focuses on borrowing levels and debt loads. Tuition fees have increased substantially over the past decade or so, while students appear to have been borrowing more, facing greater debt burdens, paying off their loans more slowly, and defaulting on their loans in larger numbers than ever before.[1]

These developments are creating fears that:

- access to the Canadian postsecondary system is suffering;
- individuals are forgoing, delaying, or slowing down their studies;
- students' choices regarding field of study, which institution to attend, part-time versus full-time enrollment, outside work during school, and going on to graduate school are also being affected; and
- young people from lower socioeconomic backgrounds are being hit the hardest, thus relating the opportunity of going on to college or university increasingly to family background, rather than the ability to do the work and the desire to succeed.

Furthermore, these issues are arising at a time when a highly skilled labor force is of unprecedented importance to the country's productivity and international competitiveness in the new knowledge-based global economy, and when the value of a postsecondary education appears to be greater than ever, with college and university graduates largely holding their own while the fortunes of those with less schooling are in steady decline.

In short, student debt issues strike at the heart of the twin concerns of opportunity (or social justice) and the nation's economic performance as they relate to one of Canada's central social programs — a powerful context for any related policy discussion. The issues are real and important. Not surprisingly, debates abound.

To help to put these debates on a firmer factual footing, this *Commentary* summarizes the results of an empirical analysis of the borrowing and repayment patterns of four recent cohorts of postsecondary graduates.[2] It then addresses a

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The research reported in this *Commentary* was made possible by financial support received from the Canada Student Loans Program Branch of Human Resources Development Canada. Assistance from the Social Sciences and Humanities Research Council of Canada for earlier phases of this research is also gratefully acknowledged. Gaétan Garneau carried out all the data calculations, and his typically excellent work is greatly appreciated. Very helpful comments were received from David Cameron, David Laidler, Herb O'Heron, Bill Robson, David Stager, Alex Usher, and Bob Young. Lenore d'Anjou did a superb job of copy editing. Some of this paper represents the extension of earlier research carried out with Saul Schwartz of the School of Public Administration at Carleton University and thus owes a considerable debt to that very agreeable and productive collaboration.

1 For general discussions of the student loan system, see AUCC (1993); Cameron (1995); Cook and Stager (1969); Duncan (1993); Finnie and Schwartz (1996); Kesselman (1993); Stager (1985; 1989); Stager and Derlach (1992); and West (1993).

2 In this respect, the paper updates and extends some of my previous work: Finnie (1994); Finnie and Garneau (1996a; 1996b); Finnie and Schwartz (1996); Schwartz and Finnie (forthcoming).

number of related policy issues that, taken together, constitute a general plan for providing future assistance to Canadian students that focuses on an improved and expanded loan system, rather than on the wholesale increases in grants (or lower tuition fees) that many commentators have been calling for. Finally, the study floats an idea for revitalizing the cash-strapped postsecondary system with infusions from governments, both federal and provincial, and from students themselves, the latter facilitated by the recommended changes in the loans system.

The Commentary *should interest anyone who sees a need to breathe fresh life into Canada's postsecondary education system after a decade or so of fiscal constraint and declining quality.*

The *Commentary* should, therefore, interest anyone concerned with students' economic situation and their access to the postsecondary system; anyone more narrowly interested in the performance of the CSLP and the related provincial lending programs, including advocates of reform of these programs; and anyone who sees a need to breathe fresh life into Canada's postsecondary education system after a decade or so of fiscal constraint and declining quality.

The Student Loans System: How and Why

To provide a context for the analysis of borrowing and repayment patterns and the associated policy issues that follows, this section briefly explains how student loan programs have worked in Canada and provides a brief primer on why such a public system is required.[3]

How Does the Student Loans System Work?

As noted earlier, the country's student loans system is anchored by the Canada Student Loans Program. Since the early 1960s, it, along with its increasingly important provincial counterparts, has guaranteed loans made by private financial institutions to qualifying students.

Eligibility

Loan eligibility is based on need assessments carried out by the provinces. The calculation begins with an individual's direct educational costs (tuition, books, and so on) plus an allowance for living and related expenses. These costs are then compared to an estimate of the student's resources, including expected savings from summer jobs, presumed parental contributions, scholarships and bursaries, and other sources. If a student's assessed need exceeds the estimated resources, he or she is awarded a loan certificate up to the allowable maximum (see below). The student can then decide to take the certificate to a participating financial institution and obtain a loan. Such institutions cannot refuse a loan for which a certificate has been issued. This policy ensures that access to the system is controlled by the government and is based on need, not on a student's creditworthiness.

Until 1994, need-assessment procedures and the packaging of CSLP and provincial assistance (loans and grants) varied considerably across provinces. Reforms instituted in the 1995/96 academic year resulted in substantially greater standardization, especially in the calculations of need assessment. But differences

3 This section borrows heavily from Finnie and Schwartz (1996).

remain, particularly in the mix of federal and provincial funding. Further coordination is currently being negotiated as part of a general set of federal-provincial agreements on student loans.

The provinces determine which educational institutions are certified for student loans. Although virtually all public colleges and universities are covered, considerably more variation exists for vocational institutes, especially private ones, which have received considerable recent attention because of the high default rates sometimes associated with their graduates.[4]

Loan limits specify the maximum amount students can borrow for each week of school. The CSLP limit in the early 1980s was $50 per week, rose in 1983 to $100, inched up in 1992 to $105, and then in 1994 increased to $165. It has remained at that level ever since. Thus, for a typical 34-week school year, a student can borrow a maximum of $5,610 through the federal program.[5]

A student can also obtain additional aid through his or her province of residence. Most provincial plans currently have loan limits of about $110 per week, although the amounts vary across provinces: from $95 for single students in British Columbia to $335 for students in Ontario who are married or have dependents.

Repayment

While an individual is in school, the government pays the interest on his or her student loans, a significant subsidy to the full cost of the borrowing. Within six months of finishing their studies, individuals must "consolidate" their loans with a single bank, agree on a repayment schedule, and begin repayment. In earlier years, student loans normally had a fixed payment (amortization) period of ten years, regardless of the size of the debt or the individual's financial situation. The size of the monthly payments, therefore, varied greatly from one situation to another. If a loan fell into default, the bank filed a claim with the federal government for reimbursement of the principal plus accumulated interest. The CSLP then paid the bank, assumed responsibility for the loan, and attempted to recover the unpaid balance.[6]

In 1995, the CSLP and the participating chartered banks signed an agreement whereby the lending institutions assumed the principal risk of student loan default.

This arrangement changed in 1995, when the CSLP and the participating chartered banks signed an agreement whereby the lending institutions assumed the principal risk of student loan default in return for an up-front payment of 5 percent of the value of each loan. Repayment arrangements were left, at least in principle, to be decided between the student and the bank. Furthermore, if a student had a federal and a provincial loan at the same institution, the two typically were consolidated to the same schedule — with the federal rules generally holding sway. In 2000, that agreement was renewed, but only on an interim basis.

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4 The problems with private institutes, whose programs are typically very short, are understood to be a main reason the Canada Millennium Scholarship Foundation Bursary Program is open only to students beyond their first year.

5 The limits described currently apply only to full-time students, who constitute the overwhelmingly vast majority of CSLP clients. In the February 2001 budget, however, the federal government committed itself to boosting aid to part-time students.

6 Default rates averaged approximately one borrower in five, but with further collection efforts (through private collection agencies), the proportion of unrecoverable borrowing was only about 7 percent (Finnie and Schwartz 1996).

As of March 1, 2001, the CSLP moved to a direct-lending scheme by which the federal government now directly holds, administers, and collects new CSPL loans through Edulinx, a private company.

Interest and Debt Relief

The interest rates charged on student loans were, in the pre-1995 period, based on the prevailing return to long-term government bonds and, therefore, relatively favorable. Since then, students have faced two repayment options: prime plus 2.5 percent floating or prime plus 5 percent fixed. This choice will continue in the new direct-lending scheme. A six-month post-schooling grace period, which existed in earlier years, was dropped for all CSLP loans negotiated after July 31, 1994, but most provinces continue to offer this initial respite.

Interest-rate relief was originally available for unemployed borrowers for periods of 3 months at a time, up to a maximum of 18 months. This assistance has been extended in recent years to those who cannot work due to temporary disability or illness and those in jobs with low earnings (depending on their debt-to-income ratio). Furthermore, individuals with long-term repayment problems (that is, those who have received at least 36 months of interest relief) can now obtain limited reduction of the principal due. The federal government continues to assume responsibility for loans to borrowers who die, who are disabled, or who otherwise cannot make their repayments without undue hardship.

Why Are Governments in the Student Loans Business?

Private institutions are reluctant to lend to students because they generally cannot provide sufficient collateral up front and their capacity to pay back in the post-schooling period is uncertain.

Why are governments in the student loans business anyway? The fundamental reason is that private institutions are reluctant to lend to students because they generally cannot provide sufficient collateral up front, and at the time the loan decision must be made, their capacity to pay back in the post-schooling period is uncertain. Without government participation, lending to students would be very limited. The result would be a general underinvestment in postsecondary education, with particularly restricted access for individuals from lower-income families. From the perspectives of both economic efficiency and equity, then, it is important for governments to participate in student loans systems — as is the case around the world. (See Mankiw 1986 for a more detailed discussion of these issues.)

In making the system work this way, the CSLP and its provincial counterparts are marked by two fundamental characteristics. First, governments control eligibility to ensure that loans are available to all students deemed to be needy, without regard to family background, future earnings potential, or other considerations related to individuals' creditworthiness. Second, governments have ensured a fair rate of return to lending institutions through loan guarantees provided up to 1995 and, from 1995 to 2001, through the provision of an up-front premium to cover the higher-than-average default rates on student loans.

Canadian governments do more, however. Historically, they have used several methods of subsidizing the costs of borrowing: assuming interest payments on loans until students leave school; absorbing the costs of various interest- and debt-

relief programs; paying the debts of disabled and certain other students; and absorbing the costs of defaulted loans (either directly or through paying banks the up-front premiums for the risk of bad loans mentioned above). These subsidies have been substantial, averaging about 30 to 40 cents on each dollar lent.

A government student loans system need not include subsidies. It could, for example, make sufficient funds available to students in need but allow interest to accumulate while individuals were in school, or it could provide nothing in the way of interest or debt relief.

A government student loans system need not include such subsidies. It could, for example, make sufficient funds available to students in need but allow interest to accumulate while individuals were in school, or it could provide nothing in the way of interest or debt relief. Proponents of such reduced-subsidy borrowing programs typically back up their case with the following arguments.

- Postsecondary education is generally a good investment for individuals and provides significantly higher lifetime earnings out of which full-cost borrowing could usually be fully financed.[7]
- College and university educations are already heavily subsidized (tuition fees cover only a portion of the actual costs), and these subsidies represent regressive transfers from the general taxpaying population to individuals who are from higher-income families or who are likely to have greater-than-average lifetime earnings in the future, largely as a result of their studies.[8]
- Assistance could be more precisely targeted on individuals who are truly in need or for whom financial considerations represent a particular disincentive to going to college or university.
- There would be less unnecessary borrowing if students no longer had access to the "free money" that results from government's payment of the interest on loans while they are in school.
- Loan eligibility could be widened and borrowing rules relaxed if students themselves were paying the loan's full costs.

Most of these efficiency and equity considerations (as well as various intergenerational equity arguments) typically crop up in any broad discussion of the appropriate division of the costs of postsecondary schooling between students and government and how various assistance programs — loans and grants — can ensure fair and efficient access to the system. The *Commentary* returns to these themes throughout, particularly in the policy discussions in the latter part of the study.

Borrowings, Burdens, and Paybacks

We now turn to an empirical analysis of student borrowing in the 1980s and 1990s, which provides the basis for the policy discussions that follow.[9] Such a factual grounding is especially important because, despite all the attention given to rising debt burdens among students, the findings indicate that the evidence typically

7 For discussion of the returns to higher education in Canada, see Cohn (1997); Côté and Sweetman (1997); Dodge and Stager (1972); Mehnet (1977); Stager (1989; 1996); Vaillancourt (1995); Vaillancourt and Henriques (1986); and Vaillancourt and Bourdeau-Primeau (forthcoming).

8 See Butlin (1999); Lemelin (1992); Levin (1990); Mehmet (1977); and Stager (1996).

9 The material in this section and the next is covered in more detail in Finnie (forthcoming a), which also includes other results, such as outcomes by province. See also Finnie (forthcoming b).

cited — debt levels of up to $60,000, students forced into poverty on a widening scale, the carrying of loans for many years — greatly exaggerates the actual situation for most graduates.

Despite steady increases in borrowing levels and debt burdens, fewer than half of 1995 graduates held student loans at graduation.

More specifically, despite steady increases in borrowing levels and debt burdens over this period, fewer than half of 1995 graduates (the most recent cohort for which data are available) held student loans at graduation, and their average accumulated (final) debt was in the arguably moderate $10,000 to $14,000 range. Furthermore, a large portion of these loans had been paid off by two years following graduation, and only a very small minority of the borrowers reported difficulties with their loans. In short, although borrowing has undoubtedly grown in recent years, it has been less extensive and less burdensome than many people think. Associated policy discussions need to be based on an accurate understanding of the actual situation.

The following findings are based on analysis of the National Graduates Survey (NGS) databases, which represent individuals who had successfully completed programs at Canadian universities and colleges in 1982, 1986, 1990, and 1995. The data used here were collected two years after the graduation of each cohort. (For more information on the NGS data, see Box 1.)

Levels of Borrowing

Figure 1 presents the levels of accumulated borrowing from student loans programs at graduation in two ways: the proportion of graduates with loans ("incidence"), and the mean amount owed by those who borrowed.[10] As these amounts are based on the information given in the NGS databases, they reflect total borrowing from governments, including the provinces, not just through the CSLP. (All dollar amounts reported here and elsewhere in the study are in constant 1997 dollars.)

For both college and bachelors graduates, borrowing generally grew across the four cohorts. At the college and Quebec CEGEP level,[11] the incidence rose from 1982 to 1986 and then remained approximately stable, finishing at rates of 41 percent and 44 percent for men and women, respectively, of the class of 1995. The mean levels of loans rose much more significantly, from just under $4,000 for the 1982 cohort to about $9,500 for the class of 1995. Among bachelors graduates, the incidence of borrowing rose more moderately, especially for men, to finish at rates of 47 percent and 45 percent (versus 45 percent and 39 percent for the earliest cohort), but the mean amounts again increased sharply, growing from about $6,000 for the 1982 cohort to $13,390 and $13,840, respectively, for the most recent group of men and women.

For graduate students, the incidence of finishing with a student loan at the masters level increased moderately over the years, from rates of 32 percent (men) and 31 percent (women) in 1982 to 37 percent and 35 percent in 1995. The mean

10 See Finnie and Schwartz (1996) and Schwartz and Finnie (forthcoming) for econometric analyses of the various outcomes for the pre-1995 cohorts. And see Finnie (forthcoming a; forthcoming b) for tables of the findings presented graphically here along with other results.

11 For brevity, college and CEGEP are generally conflated to college in the work reported here. None of the statistics reported includes graduates of vocational schools.

Box 1: *The Data*

The research reported in this *Commentary* employs four waves of the National Graduates Survey (NGS) databases, which represent individuals who successfully completed their programs at Canadian universities and colleges in 1982, 1986, 1990, and 1995. For each cohort, information was gathered from interviews held two and five years after graduation. The analysis presented here is based on each cohort's first surveys, which included the pertinent information on student loans. (This information was not gathered during the second interviews.)

These databases, developed by Statistics Canada in partnership with Human Resources Development Canada, are well suited to the analysis for several reasons. First, the large size of the NGS files (approximately 30,000 university and college graduates per survey) facilitates detailed analysis (including the breakdown of results by sex, degree level, and, for bachelors-level graduates, by discipline), while their representative nature allows the results to be generalized to the population of graduates at large. To ensure samples of sufficient size, the NGS employs a stratified sampling scheme (by province, level of education, and field of study). The results reported here reflect the appropriate sample weights. Second, the availability of data for four different cohorts permits the more enduring patterns to be separated from those which have been shifting over time. Third, the timing of the interviews provides a view of the relevant outcomes that is precisely located at a particular point in time relative to graduation — for example, the amount owed at graduation and then paid down two years later — lending the results a structural interpretation and permitting fair comparisons across surveys. (A survey of, for example, all graduates regardless of when they completed their schooling would not have these desirable properties.) Finally, the information related to student loans — including the amounts borrowed, the debt remaining two years after graduation, and self-identified problems with making loan repayments — in combination with the educational, labor market, and sociodemographic information available on the files, makes for a rich and detailed analysis.

To allow for an analysis of total accumulated borrowing by the end of the individual's schooling and of payback rates in the post-schooling period, sample restrictions were imposed to eliminate graduates who had not finished their education at the time they completed the programs that were the basis of their inclusion in the NGS databases. Dropped from the analysis, therefore, were graduates with the following characteristics: those who had obtained an additional postsecondary diploma between graduation and the first interview; those who were (as of the first interview) enrolled in a study program;[a] those who were not currently looking for work due to school attendance; and part-time workers who cited school as the reason for their only partial involvement in the labor market. The key loan variables were then verified for consistency and a small number of records were either dropped or corrected. Finally, information required for specific tables was occasionally missing, resulting in another small number of deletions.

[a] The current enrollment information was not available for the 1982 graduates. Instead, those enrolled full-time in either January or October 1983 were deleted.

amounts borrowed rose more sharply, from about $6,500 to $13,250 and $14,040 for men and women, respectively. Male PhD graduates were an exception to the other groups in that their incidence of borrowing dropped significantly between 1982 and 1995, finishing at just 23 percent, by far the lowest rate of all sex/education groups. For their female counterparts, the borrowing rate rose from 22 percent, a very low level, to 29 percent over this period. The average amounts borrowed rose

Figure 1: ***Incidence of Borrowing and Mean Amounts, by Degree and Sex, 1982, 1986, 1990, and 1995***

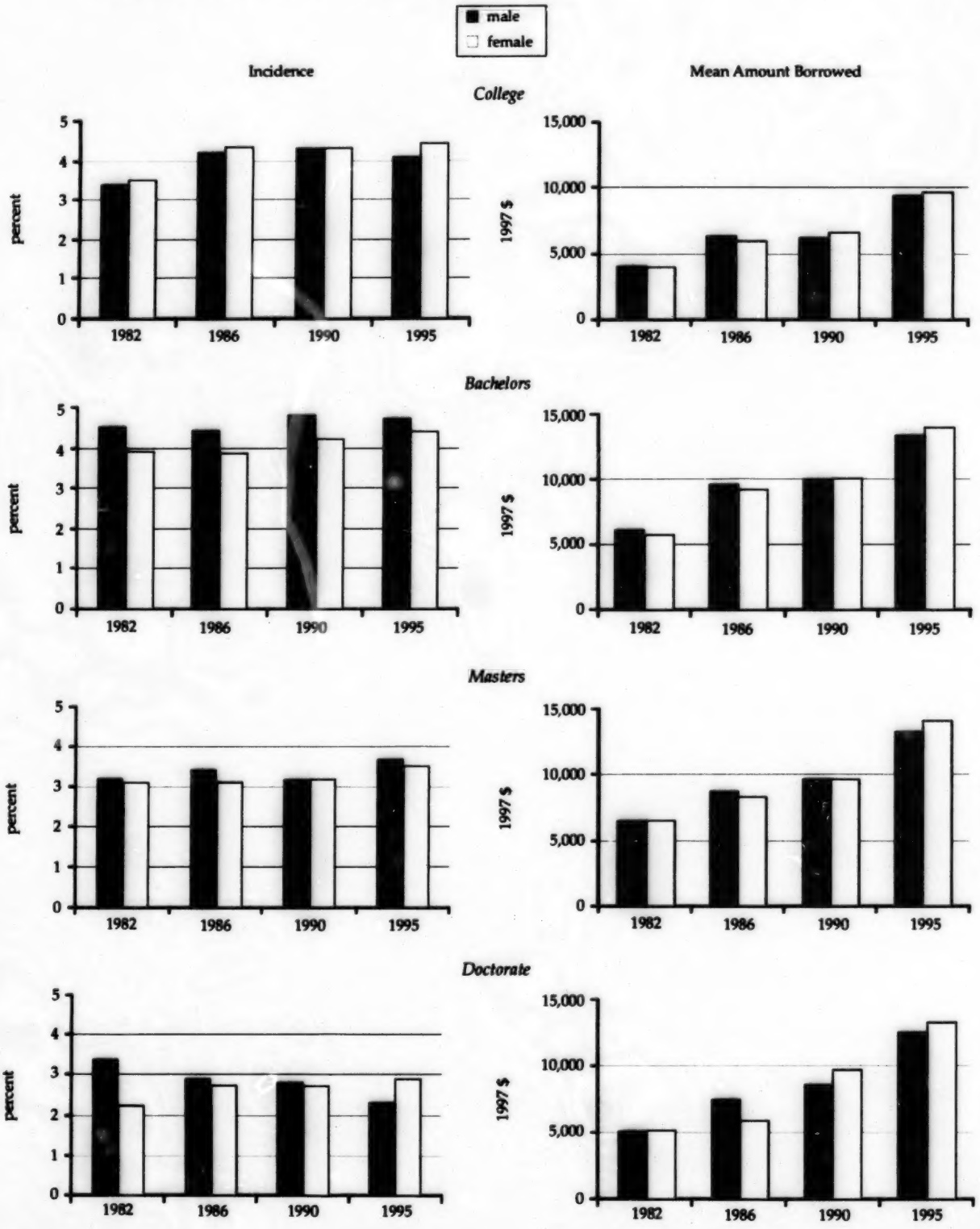
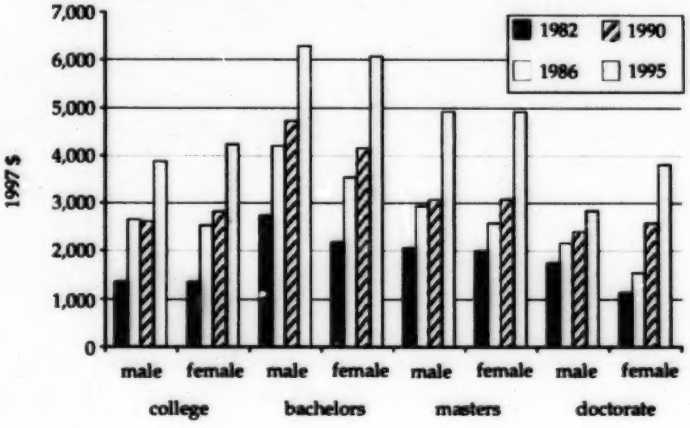


Figure 2: ***Overall Borrowing (Incidence Multiplied by Mean Amount), by Degree and Sex, 1982, 1986, 1990, and 1995***



substantially for both groups, from just over $5,000 in 1982 to $12,450 and $13,130 for men and women, respectively, in 1995.

An effective way to portray average borrowing over all graduates — including nonborrowers — is to multiply the incidence of borrowing by the mean amount borrowed for each group. The trends revealed (see Figure 2) reflect the mostly moderate increases in the incidence of borrowing and the uniformly substantial rises in mean amounts borrowed. Between 1982 and 1995, overall borrowing rose from a little over $1,000 to about $4,000 at the college level, from between $2,000 and $3,000 to over $6,000 among bachelors graduates, from about $2,000 to a little under $5,000 for masters finishers, from a little under $2,000 to just below $3,000 for male PhD graduates, and from just beyond the $1,000 level to almost $4,000 for their female classmates.

Do these levels represent a lot of borrowing? Do they indicate too much borrowing? Some observers say yes, and are especially concerned about the increases over time. Focusing on individuals with above-average debt loads,[12] these critics question how such burdens may be deterring qualified Canadians from pursuing postsecondary studies and are particularly concerned about how these dynamics have been affecting individuals from lower-income families.

Other observers, however, think that average debt around the $13,000 level (lower for college graduates) for a quarter to just under half of postsecondary graduates is not excessive. The amount equals, for example, the price of some of the least expensive new cars available for sale (which auto companies spend a good deal of energy marketing to such recent graduates) in the case of those holding loans, and it is obviously less than half this value when averaged over all graduates taken together (including those without loans). Such debt levels, these commentators say, seem especially reasonable when one considers that postsecondary education has a high rate of return and that lifetime earnings are much higher as a result of the investments these loans facilitate.

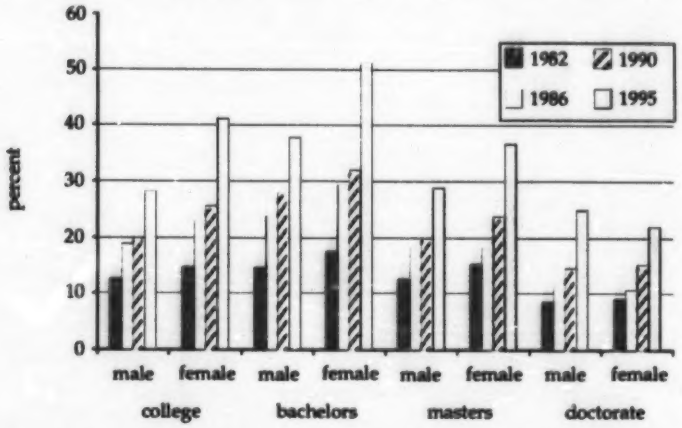
Table 1 sets out borrowing by major field of study (discipline) at the bachelors level. Interestingly, apart from the anticipated higher levels for graduates of certain professional schools (law and medicine), no obvious patterns appear across the various fields. In particular, borrowing does not seem to be related to future earnings patterns (Finnie 2001). Similarly, levels of borrowing by male and female graduates within a given discipline are generally alike. These findings suggest that student debt levels cannot be explained by a standard life-cycle model whereby those with higher expected earnings (for example, graduates in engineering,

12 For the detailed distribution of graduates' debt levels, see Finnie (forthcoming a; forthcoming b).

Table 1: ***Borrowing by Field, Bachelor's Graduates, 1982, 1986, 1990, and 1995***

		1982		1986		1990		1995	
Discipline	**Sex**	**Incidence**	**Mean**	**Incidence**	**Mean**	**Incidence**	**Mean**	**Incidence**	**Mean**
		(%)	*(1997 $)*	*(%)*	*(1997 $)*	*(%)*	*(1997 $)*	*(%)*	*(1997 $)*
No specialization	Male	35	5,780	40	9,760	45	7,760	42	11,080
	Female	15	6,440	34	10,900	36	8,480	39	11,790
Elementary teaching	Male	38	6,100	41	11,110	49	11,930	52	11,960
	Female	43	5,870	37	9,360	43	11,350	52	14,400
Other teachers	Male	48	7,430	52	8,650	56	9,360	55	13,120
	Female	54	5,520	47	9,740	47	8,760	35	15,510
Fine arts	Male	47	5,570	42	9,360	47	9,750	41	13,420
	Female	32	5,520	35	9,030	39	8,080	36	12,490
Commerce	Male	39	5,390	37	8,490	40	9,190	38	11,470
	Female	37	4,980	33	970	38	8,750	38	10,770
Economics	Male	42	4,220	38	21,690	49	7,450	51	13,730
	Female	29	4,560	41	6,020	35	7,420	49	18,000
Law	Male	72	8,560	47	11,770	54	14,730	61	17,330
	Female	64	7,350	45	11,870	66	13,280	70	17,640
Other social sciences	Male	39	5,000	34	8,570	42	8,510	41	13,100
	Female	29	5,190	38	8,620	35	9,130	44	13,200
Applied sciences	Male	43	5,070	42	8,730	49	10,370	51	13,170
	Female	47	5,430	54	8,870	49	9,020	52	13,280
Veterinary	Male	83	9,240	71	8,630	52	18,050	61	13,530
	Female	38	10,230	73	14,350	69	11,670	67	17,010
Engineering	Male	48	5,850	52	7,990	55	8,940	53	12,270
	Female	43	5,190	51	6,790	54	9,760	41	12,400
Medical	Male	82	12,180	79	14,620	65	16,220	75	30,270
	Female	66	10,990	74	13,650	72	17,150	73	22,040
Other medical	Male	69	6,880	53	10,610	49	10,950	44	14,680
	Female	47	5,740	40	9,310	46	10,260	40	15,110
Computer sciences	Male	37	5,350	40	7,220	41	9,120	49	11,960
	Female	31	6,160	37	8,690	57	10,570	38	12,900
Math, physical sciences	Male	47	5,670	44	7,540	44	8,370	60	13,690
	Female	45	4,190	37	8,420	32	10,210	56	12,400

Figure 3: ***Median Debt-to-Earnings Ratios, by Degree and Sex, 1982, 1986, 1990, and 1995***



Note: Due to a change in the earnings measure in the NGS, the 1995 figures are not directly comparable to those of the previous cohorts.

computer sciences, commerce, and mathematics and physical sciences, as well as men in general relative to women) borrow greater amounts to be paid back out of subsequent earnings. An alternative explanation is that borrowing has been largely supply constrained and that individuals typically have borrowed up to the limits permitted, a result with important policy implications regarding those limits.[13]

The Burden of Student Loans

A simple measure of the burden that this borrowing represents is to calculate individuals' debt-to-earnings ratios, defined here as the amount owed to student loans programs at graduation divided by the annual rate of pay in the job held at the first interview (for those employed at that time).[14] As illustrated in Figure 3, the median debt burdens among university graduates have generally been lower at the higher degree levels, especially for women, primarily due to the underlying earnings patterns (Finnie 1999). The burdens of college graduates have been roughly similar to those of masters graduates, the former characterized by less borrowing but also substantially lower earnings.

For all groups, debt burdens generally rose over time, driven almost entirely by the increases in borrowing levels for the later cohorts (reported above), since average earnings were relatively steady over this period, at least over the first three cohorts. Unfortunately, comparisons through the 1995 cohort are confounded by a change in the NGS earnings measure for the latest group — a change that appears to have affected women's measured earnings more than men's.[15]

As for differences by sex, debt-to-earnings ratios have generally been higher for women than for men because of the former's generally lower earnings levels (recall that borrowing levels have been roughly similar), except at the PhD level, where the male-female earnings gap is much smaller.

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13 See Finnie and Schwartz (1996) and Schwartz and Finnie (forthcoming) for further discussion of borrowing in a demand-supply analytical framework.

14 Earnings at the two-year point are obviously an imperfect indicator of longer-run profiles. More specifically, since earnings generally rise and unemployment rates decline sharply early in individuals' careers (Finnie 1999; 2000), the burden measures reported here generally overestimate the true hardship of loans over time.

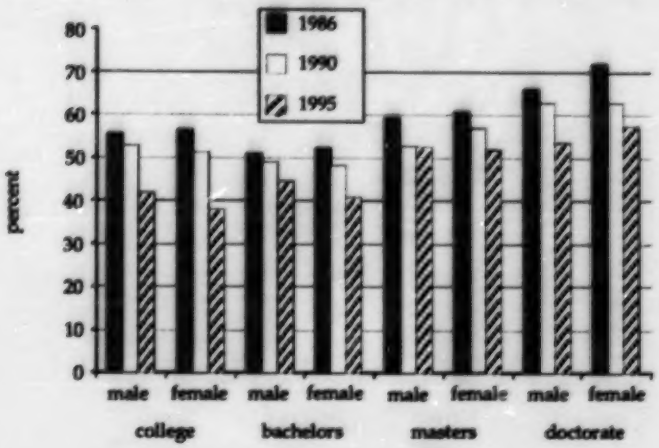
15 In the earlier cohorts, individuals were asked to report their earnings in terms of what they would receive were the job to last the full year, whether or not that was the case. Members of the 1995 cohort were asked to give their rate of pay in the manner they preferred (hourly, weekly, monthly, annually); Statistics Canada then translated these amounts into annual values based on usual hours and weeks of work.

Table 2: *Debt-to-Earnings Ratios by Discipline, Bachelors Graduates, 1982, 1986, 1990, and 1995*

Discipline	Sex	1982	1986	1990	1995
			(percent)		
No specialization	Male	—	25	22	29
	Female	—	40	35	53
Elementary teaching	Male	17	26	37	43
	Female	19	31	36	53
Other teachers	Male	18	28	33	60
	Female	17	32	30	59
Fine arts	Male	18	30	34	43
	Female	21	36	33	56
Commerce	Male	13	26	29	34
	Female	17	25	36	40
Economics	Male	11	28	25	37
	Female	—	—	—	—
Law	Male	23	33	39	45
	Female	19	36	34	52
Other social sciences	Male	16	29	32	46
	Female	20	34	36	62
Applied sciences	Male	13	27	36	44
	Female	18	28	29	47
Veterinary	Male	21	21	—	—
	Female	—	—	28	44
Engineering	Male	12	19	21	29
	Female	—	12	25	27
Medical	Male	14	18	31	63
	Female	23	21	29	73
Other medical	Male	14	20	26	37
	Female	15	22	29	42
Computer sciences	Male	14	22	21	30
	Female	19	27	27	42
Math, physical sciences	Male	14	20	22	36
	Female	9	23	27	35

Measured debt burdens vary in a predictable pattern by field of study (Table 2). As we have seen, borrowing levels have been fairly similar across disciplines. Thus, the calculated ratios principally reflect the associated earnings patterns (Finnie 2001). For example, for men of the 1995 cohort, the ratios ranged from lows around 30 percent (commerce, engineering, computer science, and no specialization) to a high of 60 percent (other teachers). The ratios were generally higher for women than men for each field but followed roughly the same pattern. Of perhaps some surprise are the rather high debt-to-earnings ratios among medical school graduates. As already noted, this group had very high debt levels; these ratios reflect the fact that their starting earnings levels were not commensurately elevated. Recall, however, the timing of the data collection: only two years after graduation. It would be interesting to see what happened in the longer run, after the individuals

Figure 4: *Proportion of Debt Repaid Two Years after Graduation, by Degree and Sex, 1986, 1990, and 1995*



Note: Results are not shown for the 1982 cohort because the relevant information was not gathered.

in this group completed their internships and residencies and their salaries better reflected their longer-run earnings levels.

In general, the debt-to-earnings ratios were considerably more equal by sex within a given field of study than for all graduates taken together (at least for the bachelors graduates shown) and were actually lower for women than men in certain disciplines (for example, engineering and mathematics and the physical sciences in the 1995 cohort). A substantial part of the higher overall average debt burdens of female graduates, therefore, appears to be due to their being overrepresented in generally low-income fields, rather than having lower earnings in a given area.

Payback Rates

How quickly have graduates been paying back their loans? If everyone followed the standard ten-year payback period, an average of 20 percent of the original debt would have been reimbursed by two years after graduation.[16] The data shown in Figure 4 indicate, however, that graduates have been paying their loans back much more quickly than this. When surveyed, college and bachelors graduates had paid back an average of about two-fifths of the debt they had at graduation, the masters group had repaid a little over half, and PhD graduates slightly greater amounts. That these repayment rates were so surprisingly rapid seems to point to student loans' not typically having been a particularly heavy burden for graduates, especially given the preferential interest rates discussed above.[17]

In virtually all cases, the percentage paid back two years after graduation fell for each succeeding cohort. Most of these declines were greater for women than for men, and in some cases the changes were quite substantial (for example, from 56 percent to 38 percent for college women and from 72 percent to 57 percent for female PhDs between the 1986 and 1995 groups). If we assume that taking longer to pay indicates greater difficulty in doing so, these findings suggest that the more recent graduates were experiencing greater hardship with their student loans in more recent years.

The observed payback rates also reflect the nature of the increased borrowing over this period, suggesting that the greater amounts reported above were generally "real" — that students in fact spent the money and did not just hold it

16 Actually, less than this proportion of the principle would be paid because interest would be a relatively large portion of the payments in earlier years.

17 That is, if students had competing demands on their disposable incomes (such as car loan payments or credit card balances), they presumably would have delayed payment on lower-interest debts such student loans.

for the investment opportunities represented by the absence of any interest charges while in school and make prompt repayment immediately after graduation.

Interestingly, the repayment rate differences between men and women do not generally correspond to their relative ability to pay, as measured above. For the 1995 cohort, for example, female graduates' payback rates were either slightly greater than males' (at the PhD level), equal (masters), or at most 4 percentage points lower (college and bachelors); yet, as we saw earlier, women's debt-to-earnings ratios were mostly about 10 percent higher (the exception being the case of PhD graduates, for whom the women's ratios were slightly lower).[18]

Differences in payback rates by discipline (Table 3) were inversely correlated with the debt-to-earnings ratios seen previously, and graduates in disciplines with higher debt burdens tended to pay back their loans more slowly. These patterns are not particularly strong, however, and there are numerous clear exceptions (for example, the extraordinarily low payback rates of lawyers). As in the aggregate figures just seen, women's payback rates within most given fields were not nearly as low relative to men's as one might predict from the debt-to-earnings ratios observed above.

Women's payback rates within most given fields were not nearly as low relative to men's as one might predict.

Difficulties with Repayment

The NGS databases do not include any information on loan default, but, for the 1990 and 1995 cohorts, they include the responses to a simple question put to individuals who still had outstanding loans as of the first interview: Had they been encountering "difficulties" with repayment?[19] Among the latest college, bachelors, and masters graduates, 29 to 33 percent reported such problems, while the rates were 21 percent and 23 percent for male and female graduates at the PhD level (see Figure 5). In each group except women who graduated with PhDs, these rates were higher than those that obtained in 1990 — in many cases, rather significantly so.

These rates of difficulty are substantial — and rising. They should, however, be placed in a broader context. Given that only a quarter to just under a half of all of these graduates had loans on graduation and 20 to 40 percent of those borrowers had repaid their debt entirely by the first interview (Finnie forthcoming, a; forthcoming, b), the proportion of all postsecondary graduates who reported repayment difficulties was 14 percent and 15 percent at the college level (for males and females, respectively), 12 percent and 14 percent at both the bachelors and masters levels, and 11 percent and 10 percent at the PhD level. These rates are considerably higher than those of the 1990 cohort, but they are still fairly low — and probably much lower than many readers would have guessed.

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18 Payback rates weighted by initial loan level ranged from 2 to 10 percentage points lower than the unweighted rates reported here (Finnie forthcoming a; forthcoming b); the implication is that graduates with more debt paid back their loans more slowly than those with less.

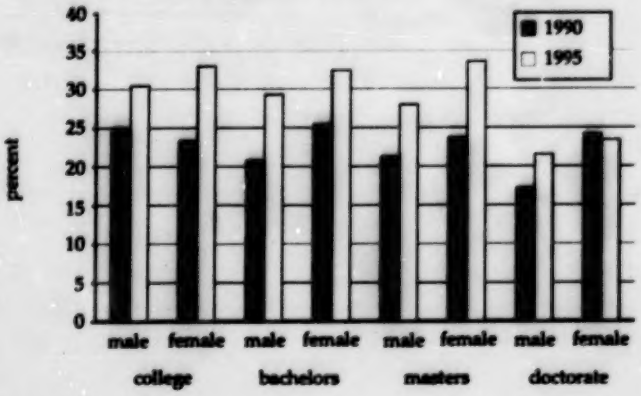
19 The obvious problem with this self-reported measure is that two individuals in similar situations might have described their experiences differently. Yet we have no obvious reason to expect responses to vary categorically from one group of graduates to another (for example, by sex, degree level, or cohort), so the measure should at least be a useful indicator of relative repayment problems. Moreover, its simple construction, based on a relatively straightforward question, should also make it at least somewhat meaningful in an absolute sense. The results are interpreted, cautiously, in this perspective.

Table 3: ***Proportion of Debt Repaid by Discipline, Bachelors Graduates, 1986, 1990, and 1995***

Discipline	Sex	1986	1990	1995
			(percent)	
No specialization	Male	49	57	34
	Female	35	56	33
Elementary teaching	Male	49	46	45
	Female	49	45	42
Other teachers	Male	49	42	46
	Female	52	43	33
Fine arts	Male	39	48	36
	Female	48	50	43
Commerce	Male	50	52	46
	Female	49	55	53
Economics	Male	49	52	48
	Female	—	—	—
Law	Male	31	31	24
	Female	49	30	14
Other social sciences	Male	46	50	41
	Female	54	43	37
Applied sciences	Male	50	50	42
	Female	55	51	41
Veterinary	Male	70	—	—
	Female	—	51	32
Engineering	Male	61	53	51
	Female	55	59	53
Medical	Male	47	44	40
	Female	52	41	29
Other medical	Male	54	59	61
	Female	60	57	51
Computer sciences	Male	49	50	53
	Female	50	58	53
Math, physical sciences	Male	58	51	52
	Female	56	44	44

Women have generally reported greater incidences of difficulty with repayment than men. This overall result is consistent with their higher debt-to-earnings ratios (due to their lower earnings levels) seen earlier, but, as with the repayment rates themselves, the male-female differences are not as great as the measured debt burdens might suggest. Taken together, these findings seem to point to male-female differences in behavior or attitudes regarding student debt, with some potentially important implications. The fact that women report more difficulties overall may, for example, imply that they are less willing to borrow for their studies, an outlook that may affect their participation in the postsecondary system at various levels. Conversely, the fact that the "difficulties gap" is not as large as the "measured burden gap" seems to suggest that women either do a better job of

Figure 5: ***Incidence of Difficulty with Repayment, by Degree and Sex, 1990 and 1995***



managing their student debt or have other reasons for being less worried than men by a given level of borrowing.[20]

The rates of reported difficulties are roughly similar for graduates at the college, bachelors, and masters levels, despite the differences in earnings levels and debt-to-earnings levels across these groups. And the lower rates at the PhD level are hardly surprising, given these individuals' higher earnings and lower debt levels.

The characteristics of graduates who encountered difficulties with the repayment of their loans is particularly important information for policymakers; with it, they can target assistance more precisely. The percentage of borrowers from the most recent cohort who had full-time jobs but experienced repayment problems varied from 16 percent to 30 percent (Table 4) — fairly low, but by no means negligible and substantially higher than for the 1990 group. For part-time workers, the rates were higher, sometimes very much so (as high as 60 percent for masters-level females). These results suggest that relief for graduates who have jobs but are stuck at low earnings levels should probably accompany assistance targeted on the unemployed. And, in fact, recent changes in the CSLP have done precisely this.

The incidence of repayment problems by income level (Table 5) is also interesting. As expected, problems were less prevalent at the upper ranges. Moreover, compared with the 1990 graduates, the most recent cohort displays fewer clear cut-points at which problems were much more common for each sex/education group, and those that can be identified vary by education level. Thus, the precise design of loan assistance programs based on income levels appears to offer policymakers something of a challenge, and anyone evaluating such initiatives may have to accept that the resulting benefits are not as precisely targeted as one might wish. Alternatively, the earnings measure available in the pre-1995 data (see above) may have been better than the more recent one at capturing the underlying ability to pay; if so, something of its type could be used for directing assistance.

Given the differences in debt-to-earnings ratios by field of study reported in Table 2, one would expect a corresponding pattern for reported repayment difficulties. This is indeed the case. Table 6 shows the incidence of problems for the 1995 cohort was as high as 51 percent (males) and 41 percent (females) for fine arts and humanities graduates and as low as 18 percent and 27 percent for their engineering counterparts. Notably, the surprisingly high debt-to-earnings ratios for medical graduates seen earlier did not translate into inordinately high rates of

20 These issues should be placed in the context of the fact that women now participate in the postsecondary system, at least at the college and bachelors degree levels, at significantly greater rates than men. This shift has occurred partly because career opportunities for women with lower levels of education are especially stunted and, more recently, because of girls' rising performance and lower dropout rates in high school.

Table 4: *Incidence of Repayment Difficulty by Labor Force Status, 1990 and 1995 Graduates*

	Sex	Full-Time	Part-Time	Unemployed	Not in Labor Force
			(percent)		
1995 Graduates					
College/CEGEP	Male	27	28	66	—
	Female	29	38	62	36
Bachelors	Male	27	42	43	—
	Female	30	35	48	32
Masters	Male	25	40	—	—
	Female	24	60	67	—
Doctorate	Male	18	—	—	—
	Female	16	—	—	—
1990 Graduates					
College/CEGEP	Male	20	44	47	—
	Female	18	38	35	52
Bachelors	Male	18	30	35	—
	Female	22	29	43	43
Masters	Male	16	27	59	—
	Female	20	35	35	—
Doctorate	Male	13	—	—	—
	Female	19	—	—	—

repayment difficulties, a finding consistent with the earlier speculation that their earnings levels two years after graduation are not good indicators of their true ability to pay.[21]

Summary of the Findings and Some Caveats

The major empirical findings of this study may be summarized as follows.

- Borrowing by postsecondary students generally rose over the successive cohorts covered by the data (1982, 1986, 1990, and 1995 graduates). A quarter to just under a half of the last group of graduates held student loans at graduation (varying by sex and discipline). The accumulated debt averaged about $9,500 for college graduates and $12,500 to $14,000 (in 1997 dollars) at the bachelors, masters, and PhD levels.

21 The circumstances for medical students have become increasingly aberrant in a number of ways. Their tuition levels at some institutions have skyrocketed to $10,000 and beyond, yet the CSLP offers no special accommodation for students in medical programs (or for those in any other particular discipline). This situation has raised concerns about, among other things, access to medical school and the tendency of graduates to take training for specializations rather than to practice general medicine. Similar developments characterize other professional programs (that is, law, business, and even engineering) in certain provinces.

Table 5: ***Incidence of Repayment Difficulty by Income Class, 1990 and 1995 Graduates***

	Sex	Less than $15,000	$15,000 to $20,000	$20,000 to $25,000	$25,000 to $30,000	$30,000 to $35,000	$35,000 to $45,000	$45,000 to $60,000	More than $60,000
						(percent)			
1995 Graduates									
College/CEGEP	Male	52	32	22	24	22	13	21	—
	Female	46	26	21	20	28	32	—	—
Bachelors	Male	49	31	26	41	26	11	6	—
	Female	46	45	27	30	17	22	10	—
Masters	Male	45	57	47	31	33	14	6	2
	Female	61	48	42	41	35	14	16	—
Doctorate	Male	—	—	—	—	—	20	13	—
	Female	—	—	—	—	—	—	—	—
1990 Graduates									
College/CEGEP	Male	59	34	21	11	9	13	0	—
	Female	36	22	22	18	11	16	—	—
Bachelors	Male	41	30	26	16	18	13	11	19
	Female	45	40	28	22	15	10	30	26
Masters	Male	53	50	40	28	20	13	12	8
	Female	53	30	21	28	16	22	13	—
Doctorate	Male	—	—	—	—	—	22	5	—
	Female	—	—	—	—	—	—	—	—

Note: All dollar amounts are in 1997 dollars.

- Average debt-to-earnings ratios declined with degree level (bachelors, masters, PhD) among university graduates, while college graduates were in the middle range. All these ratios rose over time.
- Consistent with the increasing levels of borrowing and debt-to-earnings ratios, average payback rates as of two years following graduation declined across cohorts but were still at a relatively high 40 to 55 percent for 1995 graduates.
- The incidence of self-reported loan difficulties increased over time. For the 1995 cohort, it varied between 21 and 33 percent of those who still owed money two years following graduation, with the rates generally (but not uniformly) lower at the higher degree levels. However, taking into account the number of graduates with no loans at all and those who had paid their loans off entirely by this time reveals that just 10 to 15 percent of all postsecondary graduates in the most recent cohort reported difficulties with the repayment of their student loans — a perhaps surprisingly low number.
- Repayment difficulties were greatest among unemployed graduates but were also reported in significant numbers among those who had part-time and even full-time jobs. Generally, problems were related to income levels.
- The differences in borrowing levels by sex were relatively small at graduation. The differences in debt-to-earnings ratios in the postgraduation years were

Table 6: ***Incidence of Repayment Difficulty by Discipline, Bachelors Graduates, 1990 and 1995***

Discipline	Sex	1990	1995
No specialization	Male	46	9
	Female	36	47
Elementary teaching	Male	23	33
	Female	27	30
Other teachers	Male	11	25
	Female	21	44
Fine arts	Male	30	51
	Female	38	41
Commerce	Male	18	19
	Female	14	15
Economics	Male	17	25
	Female	—	33
Law	Male	18	24
	Female	29	31
Other social sciences	Male	27	51
	Female	30	36
Applied sciences	Male	30	44
	Female	33	43
Veterinary	Male	18	—
	Female	16	27
Engineering	Male	18	18
	Female	20	27
Medical	Male	12	24
	Female	13	25
Other medical	Male	7	28
	Female	8	23
Computer sciences	Male	8	10
	Female	18	34
Math, physical science	Male	24	14
	Female	24	29

greater because of women's generally lower earnings levels. The male-female differences in payback rates and reported difficulties with repayment were not, however, as large as the "burden gaps" may have suggested.

Two very important caveats need to be attached to these findings. First, the NGS data are limited to students who successfully completed their postsecondary programs. Those who took out loans but then dropped out of school may have quite different profiles. In particular, although their borrowing levels were probably lower, they generally would not have had the higher earnings that typical postsecondary graduates enjoy and were thus likely to face greater problems during the payback years.

Second, the situation has unquestionably changed — perhaps significantly — since the last cohort of graduates covered in this analysis. For example, the 1994 increase in the lending limit from $105 to $165 per week surely pushed up borrowing levels. If we assume a proportional increase in mean borrowing levels, bachelors-level graduates who encountered the higher limit over their entire four years probably averaged cumulative totals of about $19,300,[22] rather than the approximately $13,500 reported above. Applying the new estimated averages to the previously observed incidences (again at the bachelors level) results in estimates of just under $9,000 when averaged across all graduates — still not a huge amount, but significantly higher than reported above and suggesting the continuation of longer-term upward trends.

Furthermore, provincial grant programs were largely replaced with loans in the 1990s, presumably further driving up borrowing levels. Conversely, the Canada Millennium Scholarship Foundation Bursary Program now provides up to approximately $3,000 of support for individuals in their second or third year of

22 This number was calculated by multiplying $13,500 (the approximate average amount 1995 graduates borrowed) by 1.57 (the proportional increase in the lending limit) and then taking 75 percent of the result (because the 1995 graduates would have encountered the higher limit for only one of their four years). This estimate seems to agree with other numbers in circulation, including the $19,000 arrived at by the Canadian Undergraduate Survey Consortium for those graduating in spring 2000. (The author is grateful to Herb O'Heron of the Association of Universities and Colleges of Canada for supplying this number.)

study, with these funds largely intended to reduce students' borrowing. And some provinces have introduced or expanded debt-remission plans, thereby also easing the pressures on borrowing.

Other changes have been related to payback. Under the 1995 agreement between the federal government and participating financial institutions, the latter assumed the primary risk of default (which had not previously been the case) in return for a 5 percent risk premium paid up front as each student loan was consolidated (that is, at the beginning of the repayment period). This arrangement may have changed the banks' treatment of student loans, perhaps making them more diligent in their management and more flexible in the repayment arrangements offered. There is, unfortunately, no direct empirical evidence on these results.

At the same time, the CSLP has been expanding its assistance programs for borrowers who experience problems with their loans. Since 1995, interest relief has been available not only for the unemployed, sick, and disabled, who were previously eligible, but also for those with low earnings. As well, the CSLP has introduced debt reduction on a limited scale.

Finally, the economic boom of the later 1990s boosted employment rates and drove earnings levels up across the board, while various continuing structural shifts have almost surely made things easier for many graduates (especially those with the "right" diplomas), although perhaps more difficult for others.

In summary, borrowing levels have probably increased, but it is not clear by how much. Debt-to-earnings ratios likely have risen to the degree that borrowing has, in fact, increased, but have probably declined as graduates' labor market outcomes have improved. In addition, at least some individuals experiencing difficulties with the management of their student loans undoubtedly have benefited from any increased bank flexibility in repayment terms and from government interest-relief and debt-reduction programs. These statements are only conjectures, however, and it will be important to see what the actual data reveal as they become available.

Policy Implications

The CSLP and its provincial counterparts have been doing a reasonable job in assisting Canadian postsecondary students without undue financial stress.

The analysis of the NGS data suggests that the CSLP and its provincial counterparts have been doing a reasonable job in assisting Canadian postsecondary students without undue financial stress. But it also has some policy implications that, if followed up, could lead to an improved and expanded loans system. This section of the *Commentary* explores some of these.

More Help for Those with Difficulty

We should applaud, at least in principle, the CSLP's mid-1990s' expansion of the existing interest-relief program (Finnie and Schwartz 1996) to help job holders who are stuck at low earnings levels. Further extensions are probably worth considering. However, these programs need to be analyzed to see whether they are fairly and efficiently delivering assistance where it is needed and to fine-tune them.

A still more recent policy development has been the introduction of debt reduction. Since 1998, individuals who have been receiving interest-rate assistance for at least 30 months and who finished their studies at least five years previously have been eligible to apply for debt reduction of 50 cents on the dollar, up to a maximum of $10,000. The relief may be fairly substantial, even as these conditions reduce the moral hazard problem (that is, that the benefits are not large enough to tempt individuals to adjust their work behavior to obtain them). It seems likely, therefore, that this program is providing important levels of support to chronically debt-burdened individuals in a well-targeted manner, and further extensions of this kind of assistance should be considered. Again, however, analysis is needed to make sure that the program is, in fact, doing a good job of delivering assistance to worthy candidates.

Because loan-relief programs provide some insurance against excessive debt loads, they help not only individuals who qualify for the assistance, but all *those who borrow from government loan programs.*

A particularly interesting point about these loan-relief programs is that because they provide some insurance against excessive debt loads, they help not only individuals who qualify for the assistance, but *all* those who borrow from government loan programs — or who ought to do so in the future. This aid should provide the most benefit to students from lower-income families, since such individuals presumably face the greatest hardship from excessive debt burdens and, because of the reduced levels of family support available, have the greatest worries about financing their studies through borrowing.[23]

These interest-relief and debt-reduction programs thus possess some desirable properties in terms of both efficiency and equity. They provide short-run help to individuals facing hardship with their debt burdens at any particular point in the post-schooling years. They offer additional support for those with longer-standing problems. And they should encourage qualified individuals to rely on borrowing if necessary to pursue their postsecondary studies, in the knowledge that help is available if they wind up facing excessive debt burdens. Furthermore, all of these benefits should be felt most by those from lower-income families, for whom borrowing is generally thought to be a particular deterrent to pursuing post-secondary studies.

The usual hypothesis is that students from lower-income families may be uncomfortable with the concept of borrowing to finance investments because they lack family-based experience of this type of borrowing. They may thus be intimidated by the idea of investing in their own human capital. They would also be unable to count on the same level of family support if they later encountered loan-related financial problems, even though the plan envisioned here would be generous in its provisions in this regard. Unfortunately, analysts' understanding of the underlying attitudes is very limited.[24]

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23 These debt-relief programs may be contrasted with the various loan-remission programs that the provinces have instituted in recent years. Although the latter take various forms, they possess a common attribute that differentiates them from the CSLP's debt-relief programs: the provincial programs are not based on individuals' measured debt-related hardship in the payback period. Thus, they may be thought of as providing grants that offset individuals' loan accumulation either year by year or at the final borrowing level.

24 See the discussion below about the need for further research on this and related topics.

Interestingly, basing loan relief and debt reduction on the actual hardship individuals face in the post-schooling years is taking the Canadian system a significant step toward an income-contingent repayment (ICR) model, whereby payments are geared to individuals' ability to pay. But it does so without the need to re-engineer the entire loans system, with all of the associated challenges, disruptions, and mistakes that inevitably would result along the way. Moreover, these provisions could be adjusted further to take the Canadian loans system yet closer to an ICR model, making payments even more directly related to students' debt levels and post-schooling incomes.[25]

By reducing the effective burden of a given amount of debt, an enhanced loan-relief system could also provide students with the means to shoulder higher costs for their postsecondary education — either having them pay a greater portion of the existing costs, as some would advocate, or raising additional cash for what has become a severely financially strained system. One related application of this principle is discussed below.[26]

Higher Loan Limits and Expanded Eligibility

Another implication of the findings reported in this *Commentary* is that loan limits should be raised. In some sense, this suggestion is perfectly obvious. The current limits were set in 1994, and education costs have risen significantly since then. Tuition rates alone have approximately doubled — increasing by something like $1,500 — since the early 1990s for the benchmark arts and letters programs. If the current limits were appropriate then, they must be too low now.

Furthermore, the evidence presented here shows that, as limits were raised in the past, borrowing by students did increase, indicating that it had been supply constrained and that students were glad to take out more loans when they could get them. In addition, the payback rates shown suggest that this additional borrowing was generally used to meet real needs. While students were in school, they generally did not, as is sometimes thought, use the interest-free funds to make investments. If they had, they would have paid the loans back immediately after graduation, rather than making payments more slowly and thus incurring financing costs.

Raising loan limits should provide the greatest benefit to individuals from lower-income families due to their heavier dependence on government loans programs to finance their studies.

Again, raising limits should provide the greatest benefit to individuals from lower-income families due to their heavier dependence on government loans programs to finance their studies. Higher loan limits should, therefore, give an increased number of qualified candidates the chance to pursue their studies while providing the greatest support for those from relatively disadvantaged backgrounds.

Extending eligibility for loans is another option that should be considered. In particular, the system probably should make money available to more middle-income families. Of course, this issue comes down to an empirical one on which there is relatively little hard evidence: do individuals from such circumstances actually need this assistance?

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25 See Finnie and Schwartz (1996) for a discussion of ICR systems and the ways in which the Canadian system has implicitly been evolving toward them in recent years. See also Krueger and Bowen (1993).

26 Finnie and Schwartz (1996, especially appendix B) discuss the arguments for and against higher tuition fees.

Loans: Mostly Better than Grants

The provinces largely eliminated grants for postsecondary students in the early 1990s and replaced them with expanded loan programs.[27] Many commentators have, however, called for the reinstatement and expansion of grants, typically on the grounds that such programs are the best way to ensure access to the postsecondary system, especially for individuals from lower-income families. The federal government's launch of the Canada Millennium Scholarship Foundation Bursary Program was basically a response to this clamor. Grants are, however, probably not the best way of providing financial assistance to students, except perhaps for a very specific and rather limited segment of the population.

Grants are probably not the best way of providing financial assistance to students, except perhaps for a very specific and rather limited segment of the population.

Grants obviously provide direct assistance to the students who receive them, helping such individuals attend college or university at a time when higher education is becoming increasingly important to individuals' career success and to the country's economic performance.[28]

So how can a grants system not be good public policy? First, simple arithmetic demonstrates that a given amount of government spending on student financial assistance will go much further when put into a loans system than into grants, precisely because the money is paid back in most cases and can thus effectively be recycled. In short, for any given amount of government spending, a loans system can provide a greater number of individuals with more money and thus have a greater effect on improving access to postsecondary schools.

Second, grants provide pure transfers (the entire value of the awards) to individuals who are not necessarily "needy," especially in a long-term sense. Since no selection criteria are perfect, some awards inevitably go to individuals who do not really depend on them in the first place (because, for example, they come from higher-income families or have access to other resources to pay for their education). More important, though, other awards go to individuals who move on to successful careers with significantly above-average earnings levels and who could, therefore, afford to pay back at least part of a loan that was issued in lieu of a grant. In brief, many grant recipients *could* pay for loans out of their post-schooling earnings and *should* do so because they are not poor from this longer-term perspective.[29]

Contrast such a grants system with a loans system that includes generous provisions for borrowers who face difficulties with their debts in the post-schooling period. Those provisions could be an expansion of the sort of interest-relief and debt-reduction programs that the CSLP has been moving toward in recent years, or they could link payback more even closely to individuals' post-

27 See Finnie and Schwartz (1996, appendix A) for details. But because the various loan-remission programs many provinces adopted even more recently are best thought of as grant programs (as mentioned in note 24), grants have not actually been cut as much as may appear on the surface.

28 This discussion focuses on grants based on need, not merit; the latter raise a separate set of issues.

29 Recall the various arguments against subsidizing student financial assistance mentioned above. These include that subsidies for postsecondary students generally represent a regressive transfer from taxpayers in general to those in the upper reaches of the income distribution, especially when considered across the borrower's entire lifetime. And those higher lifetime earnings largely stem precisely from the higher education the system provides individuals, education that is already supported significantly by the general support governments provide the system.

schooling incomes, as in the classic ICR designs. The pure aid element of such a system would go, by construction, to those individuals facing hardship in their post-schooling years and who were thus needier from a longer-term perspective — that is, where help was more truly needed and deserved.

A well-designed assistance-providing loans program requires those who can afford it to pay back at least some of the money they were advanced for their postsecondary studies, while offering relief to those who are not in a position to make those payments.

Overall, a well-designed assistance-providing loans program requires those who can afford it to pay back at least some of the money they were advanced for their postsecondary studies, while offering relief to those who are not in a position to make those payments. In contrast, a grants program gives assistance equally to all individuals, richer and poorer alike in the post-schooling situation — the wealthy business school graduate (to employ a stereotype) as much as his or her more straitened classmates and those who have not managed to finish their studies and therefore do not benefit from the higher earnings that typically accrue to postsecondary graduates.

The basic difference between the two systems is that grants programs assess need *ex ante* on the basis of family background (that is, the individual's *history*), whereas an assistance-enhanced loans system can target its aid on those who face difficulty in the *post-schooling* period, thus responding to individuals' current situations, rather than their pasts. And the lower overall costs of a loans system mean that more money is available to help students who really need it in the long run.

In summary, then, given the same amount of government funding, an assistance-enhanced loans system could provide greater amounts of assistance to more students in a more effective and arguably fairer manner, thus doing an all-round better job of enhancing access to the postsecondary system than a grants system.

Furthermore, by providing more money to more individuals to help them attain their postsecondary schooling goals and by focusing the pure transfer element of the available aid on those who really need it in the post-schooling years, a well-designed assistance-enhanced loans program should send capable students a clear message that the required funding is there for those who need it and that excessive debt burdens will not be a problem. Such a message should be strong encouragement for individuals from middle- and lower-income families to invest in their futures.

Finally, a social program that was so attractive in terms of contributing fairly and efficiently both to broad economic goals (helping to provide for a highly skilled labor force) and to social justice (enhancing the life chances of those from middle- and lower-income families) might garner additional government funding. Then the loans system could be opened up further still, with more relaxed eligibility criteria (for example, making loans available to individuals further up the family income scale), more generous levels of funding, and more support for debtors with repayment problems — in short, increased, effective assistance for individuals to invest in their futures through postsecondary schooling.

Such a "loans-first" policy option would, however, carry one risk. The system's designers might be tempted to introduce a loans system that did not provide sufficient amounts of assistance for individuals to pursue their studies or that did not offer adequate support for individuals in the postgraduation years. Such a policy failure — in which the substitution of loans for grants was effectively a short-term cost-saving exercise, rather than the means of spending a given mount of aid funding in a better way — could clearly leave needier students worse off

and reduce access. Intelligent and responsible policymaking is the guarantee against this down-side scenario.

In the end, and perhaps most important, the issue is also an empirical one. If loans are, in fact, a significant deterrent for certain individuals, especially those from lower-income families, who may have greater debt aversion than others for a variety of reasons, then grants could still represent a significant element of an overall student aid package.[30] That said, the argument offered here is that a loans system that included generous assistance during the payback period for those in distress would be the preferred primary vehicle for delivering assistance to students who need it and guaranteeing access to Canada's postsecondary system regardless of family background — especially when government funding for such programs is limited.

The Need for More Research

The empirical analysis presented above included some useful findings about aid to postsecondary students. Their borrowing from government loans programs has risen over time, but, at least over the period covered by this analysis, their levels have not been as great as some people may have thought. At the same time, the increasing borrowing levels have led to higher postgraduation debt burdens, lower payback rates, and higher numbers of graduates who reported difficulties with their loans, although the overall incidence of those problem cases remains quite low.

Research to date has not been able to answer some of the most important policy-related questions pertaining to student borrowing and access to the postsecondary system.

This research has not, however, been able to answer some of the most important policy-related questions pertaining to student borrowing and access to the postsecondary system. It does not, for example, tell us how many individuals have actually been able to pursue their studies thanks to government loans programs; a simple counting of the number of graduates with loans is not a good measure for this critical performance indicator (because, for example, many individuals who received loans might have found other means to support themselves or simply managed with less). Neither does the analysis tell us how many potential candidates have *not* pursued their studies because they could not obtain the necessary borrowing or because they were unwilling to take on the required debt loads. Nor do we know how these outcomes relate to social class and family background.

Furthermore, the question of access is complex and multifaceted. It involves not just whether an individual goes to college or university but also the specific program chosen, the location of the institution attended (in the student's hometown or out of town), whether the individual studies part time or full time, whether he or she needs to hold a job while in school, the decision to go on to graduate school, and so on. It would be interesting to look at all these aspects and the role that money issues and student loans play within them.

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30 Whether the financing comes from loans or grants generally has relatively little effect on the benefit-to-cost ratio of a postsecondary education because the greatest cost of the schooling is the opportunity cost of the forgone earnings. That cost is, of course, unaffected by whether aid comes from grants or loans. Similarly unaffected are the monetary benefits (the higher earnings) due to the schooling. (See the references in note 8 regarding the rates of return to postsecondary schooling.

Answering these questions would require another research undertaking with new and different data that permit identifying young people who are interested in and eligible for postsecondary studies and then following them to see who went on to college or university and who did not, as well as identifying the various factors related to this dynamic, including socioeconomic background (family income) and the existing student loans programs. Continuing to track borrowers (including dropouts) through and after their studies would also be instructive. Such information would allow possible improvement of the financial aid system's key parameters, including borrowing eligibility rules, lending limits, assistance in the payback period, and the mix of loans and grants.

Statistics Canada has developed the very elaborate Youth in Transition Survey, which should be extremely useful in this respect. It will build on an initial survey carried out in 2000 and follow a representative sample of adolescents through their formative and transitional years. Statistics Canada, in collaboration with the CSLP program staff at the Department of Human Resources Development, is also planning a supplement to its standard Labour Force Survey, which is to go into the field in 2002 (and perhaps to be repeated in future years) and which is aimed at providing information on these access and loan issues from a cross-sectional perspective.

A more up-to-date and complete tracking of borrowing and accumulated debt would also be very useful.[31] Administrative data seem to offer particularly interesting opportunities in this regard, and the federal-provincial harmonization agreements currently being negotiated between Ottawa and the provinces could result in significantly improved information systems regarding student loans.

A Proposal

Most provinces have reduced their operating grants over the past ten or more years, the tuition fees charged students have not offset these cuts, and enrollments have risen.

Despite certain pockets of vibrancy and growth, Canada's postsecondary education system has been going through a difficult period over the past decade or so. The basic problem is that most provinces have reduced their operating grants over the past ten or more years, the tuition fees charged students have not offset these cuts, and enrollments have risen. As a result, class sizes have risen and students' accessibility to their professors has declined, few new faculty members have been hired, regular professors have been replaced with sessional lecturers and teaching assistants, the number and variety of course offerings and degree programs have declined, library acquisitions have been cut, equipment has become increasingly obsolete, paint is peeling, and a general dowdiness pervades.[32] These are, in short,

31 CSLP administrators currently do not know how many individuals take out loans in a given year or the amounts they borrow. The administrators do, of course, know the number and value of loan certificates issued, but neither the participating financial institutions nor the student borrowers tell the CSLP how many of the certificates are actually exercised or the value of the loans thus obtained. The new direct lending system should change this.

32 See AUCC (1999) for documentation and discussion of these developments. It should be noted that the situation has recently turned around somewhat on the research side with, for example, the introduction of the Canada Research Chairs program, reinvestments in the federal granting research agencies (the Social Sciences and Humanities Research Council of Canada, the National Sciences and Engineering Research Council, and so on), substantial investments in the Canadian Fund for Innovation for research infrastructure, and a system of National Health Institutes that will fund research in the medical sector. These developments contrast, however, with the general...

not particularly good times at Canadian universities, and the quality of education has declined.[33]

Deterioration has occurred at a time of general agreement that postsecondary education is an absolutely critical element to career success at the individual level and fundamental for Canada's ability to compete in the new knowledge-based global economy.

The irony — and critical consequence — of this deterioration is that it has occurred at a time of general agreement that postsecondary education is an absolutely critical element to career success at the individual level and fundamental for Canada's ability to compete in the new knowledge-based global economy (see, for example, Courchene 2001).

Revitalizing the Postsecondary System

In this context, building on the empirical findings and the policy discussions offered above, what follows is a proposed social contract to revitalize postsecondary education.[34] It is more in the nature of a notion than a detailed plan, but the basic concept should be clear enough.

The "social contract" notion is of the modern type, implying contributions from all principal parties involved, in this case a sharing of the required investments among the relevant stakeholders. The idea is this. Each party — students, provincial governments, and the federal government — would put, say, $1,000 per student of new money into the system, with the funds going to universities' general operating grants or otherwise directly into the educational front line. At current enrollment levels (somewhere in the 700,000 range), the cost to the federal government would be around $700 million. This sum is not insufferably great, especially in these halcyon days of improved budget surpluses. The total bill for the provinces would be the same, distributed across them according to the number of students within the jurisdiction. Each student would see a $1,000 increase in his or her fees.

If this money went straight into universities' operating budgets, their average spending per student would rise from the current $12,000 to $13,000 level by somewhere around 25 percent (although precise, well-defined spending estimates of this type are difficult to arrive at), a very substantial increase that could be the cornerstone of the badly needed extended revitalization of the university system.

How would students view the change? They have been (justly) complaining that tuition fees have risen significantly over the past decade or so,[35] but the quality of education they have been paying for has been declining; in other words, they have been paying more money for less education as governments have been de-investing in the system. Offered the alternative scenario of an increase in tuition that was to be matched twice over by public funds and would thus result in a

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Note 32 - cont'd.

...lack of movement on the teaching side *per se*, especially in terms of funding on a per student basis. Furthermore, recent initiatives in some provinces have been designed primarily to increase enrollments, rather than the quality of education offered.

33 One might ask why enrollments have continued to rise as the quality of education has declined. The main reason is that individuals without at least some postsecondary schooling have done increasingly poorly in the labor market, thus pushing up the demand for higher education.

34 It is expressed here in terms of the universities but would be equally applicable at the college level.

35 Although these fees appear to be getting back only now to the real levels that prevailed in the 1960s and are still significantly lower than in the period before that.

substantial increase in the quality of schooling, students might well adopt a positive attitude. Surely few students wish for a low-price, low-quality educational system, and the new arrangement could reverse the downward trend that has occurred over the past ten to fifteen years or more.

Concomitantly, the government loans system should take the proposed fee increases into account. Simple logic suggests rises in borrowing limits equal to the proposed $1,000 tuition hike. Given that debt levels have only rarely been unmanageably high, as the analysis above suggests, an extra $4,000 over a full (regular) undergraduate career — the absolute maximum that would hold for anyone who needed to borrow the full amount — should not represent an excessive burden for most students.

The extra borrowing would, however, create *some* increase in the number of payback problems. The initiative should, therefore, be accompanied by an increase in the funds pegged for loan relief. In short, students should be given the means to finance their share of this investment out of the future earnings they will typically enjoy, but they should *also* be provided the insurance of additional support in the event that they encounter trouble with their resulting loan burdens in the post-schooling period.

As for the two levels of government, this proposal should seem a similarly good deal to each. Although they would be spending more money, it would be in an area of tremendous social value — on which they all seem to agree when the question is a matter of rhetoric — and in a context in which the other stakeholders would be putting in twice that amount. The precise forms of those investments would, of course, need to be worked out, and some of the related mechanics could be rather complicated.[36] But these details surely could be resolved with goodwill and creative thinking, especially given such a win-win proposition.

Such a deal should, ideally, include an agreement on tuition levels and on other spending on the postsecondary system by both the federal and provincial levels of government. Students would then be able to plan knowing the costs they were going to be facing, and each party could be more sure that its investment was not going to be offset by cutbacks elsewhere.

The health of the country's post-secondary system is at stake, and if something is not done, Canadians will be paying for this continuing disinvestment for many years to come.

The proposition is clearly of the back-of-an-envelope type — and not a very large envelope at that. Details are sketchy, the proposed amounts more-or-less pulled out of the air, and the precise financing and transfer mechanisms left largely undeveloped. But the basic idea seems worth considering. The health of the country's postsecondary system is at stake, and if something is not done, Canadians will be paying for this continuing disinvestment for many years to come.

Going Further

My proposal is, of course, predicated on the assumption that the new money would be wisely spent and result in significantly improved — not just more

36 For example, the nature of the federal contribution would have to be decided in the context of postsecondary education's being a provincial matter, although the federal government currently provides funds in the form of block transfers (the Canada Health and Social Transfer), the research granting agencies, the CSLP itself, the new Canada Millennium Scholarship Foundation Bursary Program, infrastructure spending programs, and so on.

expensive — postsecondary schooling in this country. International studies regularly conclude that, although Canada spends a higher percentage of its gross domestic product on postsecondary education than do other industrialized countries and has a large proportion of its population go on to the postsecondary level, the performance of the system is not judged to be equally stellar. One well-known report, for example, concludes that "Canada spends a lot on education, but does not seem to be getting good value for money" (OECD 1992, 76).

The fundamental questions regarding the what, how, and for whom of Canada's postsecondary education system thus could use some rethinking. For example, one option would be to reverse the trends of the 1960s and close or merge certain institutions or concentrate research efforts at selected places while leaving others to focus on teaching, as is done in many other countries. The discussion here is, therefore, offered with an understanding that, with or without an infusion of more money, substantial reform might well be appropriate — and that money without reform would run the risk of its not being used as efficiently as it could be.

Conclusion

The empirical evidence presented in this *Commentary* has led to a number of policy proposals that, taken together, constitute a fairly specific program for providing financial assistance to Canadian postsecondary students in the years to come.

Let us first review the key empirical findings. First, average borrowing levels and corresponding debt burdens have, at least as far as the most recent data show, not been excessive. Second, the vast majority of postsecondary graduates do not appear to have encountered difficulties with the repayment of their student loans. Third, students have tended to increase their borrowing when given the chance, indicating that borrowing has been supply constrained and that more funds have been wanted and needed to help Canadians finance their studies.

Meanwhile, though, tuition rates and other schooling costs have been rising, leading to concerns that access to the postsecondary system is becoming increasingly limited, especially for those from middle- and lower-income families. The key policy issue is, therefore, to identify the fairest and most efficient means of providing financial assistance — and probably greater amounts of it than ever before — to postsecondary students in this country.

The key policy issue is, therefore, to identify the fairest and most efficient means of providing financial assistance to postsecondary students in this country.

The basic idea proposed here is to focus on the development of an expanded student loans system, which should have the following characteristics. First, eligibility criteria should be relaxed, giving more individuals access to the system. Second, borrowing limits should be raised, making more funds available to those who need them; the program design should include special measures for students who face the skyrocketing tuition fees being charged for certain deregulated and other speciality programs.[37] Third, loan assistance in the post-schooling period should be significantly expanded, either in the form of further enhanced interest-relief and debt-reduction programs of the type introduced in recent years or

37 In Ontario, for example, medical schools now regularly charge $10,000 or more, certain business programs have even higher tuition fees, and even undergraduate engineering programs have seen substantial increases relative to other programs.

through a more explicitly income-contingent repayment system that relates payments directly to individuals' current income levels. In this way, students would have access to the funds they need, most individuals presumably could continue to pay back their loans without experiencing excessive hardship, and those who needed repayment assistance would be able to obtain it. In addition, a limited grants system would be targeted on those from lower-income families for whom debt aversion is seen as a particular problem and this extra subsidy is deemed critical to ensuring fair and equal participation in the postsecondary system for individuals from all family backgrounds.

Many details would have to be worked out and considerable fine-tuning would be required. But these broad guidelines, based on some relatively simple principles of fairness and efficiency, could form the basis of a full program design.

Only the general outline of the proposal is set out here. Obviously, many details would have to be worked out and considerable fine-tuning would be required. But these broad guidelines, based on some relatively simple principles of fairness and efficiency, could form the basis of a full program design.

Such a system would, along with the existing sets of tuition fees, make for a rather finely tuned pricing and financial support scheme for postsecondary education in Canada possessing the following attributes.

- At anything like current tuition levels, governments would continue to provide heavy subsidies to the postsecondary system. All students, regardless of family background, would benefit because tuition would still cover only a relatively small portion — today, somewhere around a third — of the full costs of their studies (a small number of professional programs excepted), at least in the public colleges and universities that form the backbone of the system.
- Students from wealthier families, deemed ineligible for any sort of financial aid (loans or grants), would pay the full prevailing tuition schedules and related costs on the grounds that they should be expected to do so for the variety of equity and efficiency reasons discussed above.
- Students from middle- and lower-income families who qualified for government loans would benefit from the availability of funds from that system and from the various general subsidies contained therein (such as the government's paying the interest on student loans while the individual is in school and the favorable interest rates during the payback period previously negotiated between the government and the banks).
- Students who went on to successful careers with good earnings levels would be expected to pay back the full amount of their loans for the same reasons that those from higher-income families would pay for their education up front — they could afford to do so, and various equity and efficiency factors argue in favor of it.
- Individuals who experienced problems with their debt loads would, on the other hand, be helped through expanded interest-relief and debt-reduction programs — or through a more general shift to an income-contingent repayment program. Even those borrowers who did not receive such assistance would benefit from the insurance aspect it offered, a potentially potent tool for combating the debt-aversion problem that may currently deter qualified individuals from pursuing postsecondary studies.
- Those from lower-income families for whom debt aversion is deemed to be a particularly significant problem — even in the face of the assistance described above — would receive grants (perhaps mixed with loans) in their overall

financial assistance package, effectively offering an additional incentive to pursue postsecondary studies.

How would such a system differ from the current one? In some ways, not a great deal. Most of the elements are already present, although in different forms and to different degrees across provinces. Some particular suggestions, however, would mean substantial reform. These include expanding eligibility for loans, raising the limits for borrowing, offering considerably more assistance to those who encounter difficulties in the post-schooling period, and, perhaps most significantly, favoring loans over grants as the appropriate vehicle for delivering financial aid to students. In addition, changes along the lines described above could provide the means of raising some desperately needed new funds by making viable additional payments on the part of students, along with contributions from both the provincial and federal levels of government — an option that would be much more problematic without the sorts of reforms suggested here.

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